



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,962	03/24/2004	Masayoshi Shinohara	44471/298742	4093
23370	7590	08/21/2006	EXAMINER	
JOHN S. PRATT, ESQ KILPATRICK STOCKTON, LLP 1100 PEACHTREE STREET ATLANTA, GA 30309				DUONG, THO V
ART UNIT		PAPER NUMBER		
		3753		

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/807,962	SHINHAMA, MASAYOSHI
	Examiner Tho v. Duong	Art Unit 3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 08 June 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1,2 and 4-9 is/are pending in the application.  
 4a) Of the above claim(s) 4,6 and 7 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,5 and 8-9 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

Receipt of applicant's amendment filed 6/8/06 is acknowledged. Claims 1-2 and 4-9 are pending. Claims 4 and 6-7 remain withdrawn from further consideration.

### ***Allowable Subject Matter***

The indicated allowability of claim 8 is withdrawn in view of the newly discovered reference(s) to Hirano et al. (JP 2002-52023A). Rejections based on the newly cited reference(s) follow. Any inconvenience is regretted.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2,5 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed limitation that a length of the heat exchanger tubes of the larger heat exchanger is longer than a length of the heat exchanger tubes of the frontmost heat exchanger in an elongation direction of the tube" is not supported in the original disclosure. It appears in figure 1B that the tubes (14,24) of two heat exchangers (10,20) are equal in length in an elongation direction of the tubes.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al. (JP 2002052923A). Hirano discloses (figures 2, 7 and paragraphs 19-22) a heat exchanger assembly comprising a condenser (100) configured to introduce an airflow from an intake thereof and configured to condensate a refrigerant of a vehicle air conditioner by the airflow; a radiator (200) located at the back of the condenser in a direction of the air flow and configured to cool engine coolant by the airflow; a reservoir (130) fixed to the radiator (200) and located behind a plane extending through the intake of the condenser for reserving refrigerant condensed by the condenser, wherein the reservoir (130) is located alongside the header pipe of the radiator (figure 7a).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano in view of Uchikawa et al. (US 6,595,272). Hirano substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the condenser has a shorter

header pipe than the radiator in the elongation direction of the tube and a side plate disposed at end of the tubes. Uchikawa discloses (figure 2 and column 3, lines 44-50) a double heat exchanger having condenser core and radiator core, wherein the header pipe (124) of the radiator is longer than the header pipe (113) of the condenser for a purpose of sufficiently containing the engine liquid coolant, which does not undergo any phase change process. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Uchikawa's teaching in Hirano's double heat exchanger for a purpose of sufficiently containing the engine liquid coolant, which does not undergo any phase change process. Regarding claim 5, Uchikawa discloses (figures 1-2 and column 3, lines 52-55) a side plate (130) is disposed at the end in the stacking direction of the tubes for a purpose of reinforcing the condenser core and the radiator core. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Uchikawa's teaching in Hirano's heat exchanger for a purpose of reinforcing the condenser and the radiator core.

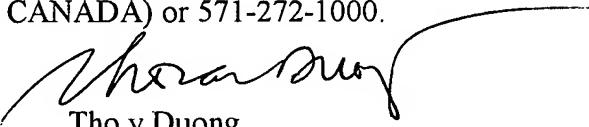
Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano and Uchikawa as applied to claim 1 above, and further in view of Nakamura (US 5,159,821). Hirano and Uchikawa substantially disclose all of applicant's claimed invention as discussed above except of the limitation that a bracket is used to mount a header pipe and the reservoir. Harris discloses (figures 5-7) a heat exchanger that has a reservoir (2) mounted on a header pipe (3) by a bracket (26) for a purpose of securing the reservoir onto the header pipe. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Nakamura's teaching for a purpose of securing the reservoir onto the header pipe of a heat exchanger.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keasel Eric can be reached on 571-272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tho v Duong  
Primary Examiner  
Art Unit 3753



TD  
August 16, 2006